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CONTENTS:

Editorial Announcement	65
Species of Cornus of Philip Miller. O. A. Farwell	68
Notes from Herbarium of University of Wisconsin—VI.	
<i>N. C. Fassett</i>	72
Concerning a Californian Convolvulus. L. M. Perry	76
<i>Meesea triquetra</i> . W. C. Steere	77
<i>Littorella americana</i> in Washington County, Maine. A. H. Norton	79
New Station for <i>Littorella americana</i> . F. H. Steinmetz	79
<i>Cuscuta Polygonorum</i> in New England. R. J. Eaton	80

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Das Pflanzenreich; etc., etc.) have at least their diagnostic portions in Latin, so that every competent taxonomist must, of necessity, be able to decipher descriptions in that tongue. Therefore, the compromise was reached at Vienna of demanding that new *diagnoses* should be in Latin.

The final vote at Vienna was 105 in favor of the Latin diagnosis, 88 against it. Consequently, there was some justification for those who do not feel bound by majority rulings to argue that the vote was not decisive. In line with this opposition to the majority decision much important taxonomic work, notably by certain Americans and Japanese, has been issued with nationalistic fervor but with indifference to the convenience of others and in defiance of the rule; its authors balking at the Latin diagnosis in their own work, though glad to have it in the work of colleagues whose native languages they could not decipher. Accordingly, the subject was reopened for full discussion and reconsideration at the Fifth International Botanical Congress at Cambridge (England) in 1930. Various propositions were presented: to abandon the rule absolutely; to make it a recommendation rather than a rule; to add as alternative languages English, French and German; or to admit any language using Roman letters. No one desired to exclude the valuable publications, notably in the United States, from institutions which had not wholly accepted the old Article 36, especially in view of the fact that the original vote on that article had not been essentially unanimous.

In their communications to the Cambridge Congress the Russian botanists strongly urged the retention of the article, and recommendations from botanists regularly writing in the Latin alphabet were largely in favor of some such provision. When the actual deliberations on nomenclature were reached, certain fundamental alterations in the International Rules were made to meet the desires of those Americans who had not heretofore fully accepted the Rules; and the feeling was nearly unanimous, that, if the vote on the retention of Article 36 were decisive, the date of its application might, with propriety, be altered so that publications made during the period following the possibly indecisive vote at Vienna might be validated. Recognizing that the leading botanists of the world were much nearer than heretofore to a mutual understanding upon the necessary, but always perplexing, subject of nomenclature and very generally agreeing that some provision is necessary to insure to botanists of all races and tongues in-

telligent access to the taxonomic work done in all countries, the Congress reaffirmed the requirement of a Latin diagnosis but voted to change the date for application of Article 36 from January 1, 1908 to January 1, 1932, and to exclude the Bacteria from the provision of the rule, bacteriology having little in common with ordinary taxonomic work.

That the Congress was a remarkably representative one (though, of course, dominantly British) no one can question; the registration was approximately 1200, of whom about 200 were from the United States and Canada. The deliberations in the sessions on Nomenclature, presided over by Merrill of the New York Botanical Garden, were participated in by many outstanding taxonomists, representing about 30 nations, such experienced students, to mention a few whose work is familiar to Americans (and omitting the large representation from North America), as Briquet (Switzerland); Mangin, Moreau, Gagnepain, Guillaumain and Maire (France); Pampanini (Italy); Handel-Mazzetti, Janchen, Pfeiffer and Pia (Austria); von Degen (Hungary); Borza (Rumania); Domin and Podpera (Czechoslovakia); Diels, Harms, Schellenberg, Schneider, Mattfeld and Markgraf (Germany); Henrard, Jeswiet and Pulle (Holland); Naveau and Hauman (Belgium); Ostendfeld and Christensen (Denmark); Juel and Robert Fries (Sweden); Holmboe (Norway); Prain, Rendle, Hill, Ramsbottom, Stapf, Cotton, W. W. Smith, Craib, Davy, Sprague, Wilmott and Miss Green (Britain); Black (Australia); Allen (New Zealand); Parker (India); Chun (China). After prolonged and very free discussion the ballot, as shown by the unofficial record before us, indicated 371 votes in favor of, 24 opposed to, the requirement of the Latin diagnosis. This vote of 371 to 24 (a ratio of $15\frac{1}{2}$ to 1) is far nearer to unanimity than the vote at Vienna, of 105 to 88 (a ratio of 11 to 9) and should be considered absolutely decisive.

Convinced that true progress in the science can be achieved only by the acceptance and conscientious following of the decisions of the overwhelming majority of taxonomists at duly constituted international congresses, the Editorial Board of RHODORA wishes to announce its purpose to accept the ruling that, beginning January 1, 1932, publication of names of new groups of plants (Bacteria excepted) will be valid only when they are accompanied by a Latin diagnosis. By a *diagnosis* is meant, not necessarily a long and detailed description, but at least a concise statement of the leading characters (the

diagnostic characters), which can, if desired, be made in a few lines. Authors are, therefore, asked, out of consideration for those of other linguistic stocks and in order that their publications may be valid, to see that any descriptions of new plants or new groups which they propose to publish in RHODORA, have at least a diagnosis in Latin. If contributors find themselves embarrassed by this requirement, they may supply an English diagnosis which, for the time being, at least, the Editorial Board will undertake to have converted (with charges at cost for matter of considerable length) into Latin.

CONCERNING SOME SPECIES OF CORNUS OF PHILIP MILLER

OLIVER ATKINS FARWELL

SOME years ago I had occasion to consult Philip Miller's *Gardeners' Dictionary*, Ed. 8 (1768). At that time I gave the volume a more or less cursory examination and marked certain species therein for future investigation. Amongst these were several species of *Cornus*, and especially *C. Amomum*. In Miller's discussion of this species he says: "The shoots of the fifth sort are of a beautiful red color in winter; and in summer, the leaves being large, of a whitish color on their under side, and the bunches of white flowers growing at the extremity of every branch, renders this shrub valuable; and in autumn, when the large bunches of blue berries are ripe, they make a fine appearance."

I was puzzled to understand how such a good description of *Cornus stolonifera* could apply to the current understanding of *C. Amomum*. Both species are rather frequent in Michigan, and I have put a large amount of study on the species in the field, and the more I have observed them, the less I could apply Miller's remarks to our Silky Cornel. A close study of Linn's description of *C. sericea*, which has universally been considered a synonym of Miller's species, indicated that he likewise was describing the same species with beautiful red shoots. Each, likewise, quoted the same plate of Plukenet (*Phyt. Part 3, Table 169, Fig. 3*) as a synonym, but the text each quoted was not identical. I finally wrote Mr. Mackenzie for information about the text matter, and he kindly sent me the full description of Plukenet. I also sent specimens of various species of *Cornus* to the British Museum, asking for comparisons with the plate of Plukenet,

and with herbarium specimens of Plukenet, Miller and Linn. Mr. A. W. Exell, of the British Museum, sent me a rough sketch of Plukenet's Fig. 3. I agree with both Mr. Exell and Mr. Mackenzie, that the figure represents *C. Amomum* as found in our local manuals; but as the color of the pubescence is not shown, it may fit equally well, as pointed out by Mr. Exell, either the variety with rusty pubescence (my No. 1810) or the one with silvery pubescence (my No. 4272). Mr. Exell reports further:

"There is a specimen in Hort. Sloane (206, p. 67) which is very similar to Plukenet's figure but not exactly so, so that one cannot be justified in assuming that it is the species figured without any further evidence."

The specimen is in a poor state of preservation, but has no rusty pubescence, and Mr. Exell thinks it would be identified with my No. 4272, with silvery pubescence. Mr. Exell informs me that Plukenet's specimens are at the British Museum, but that there is no specimen there that has ever been identified as the original of the figure 3 under discussion; also, that all that is extant of Miller's Herbarium is there, but that there are no specimens representing *C. Amomum*, *C. candidissima*, and *C. foemina*; and that the only way of identifying these species is through an interpretation of their descriptions. Also that if Miller ever preserved specimens of these species, they were either lost or destroyed before Miller's Herbarium came into the possession of the British Museum.

My No. 8534, Mr. Exell took to the Linnaean Herbarium, and finds "that it agrees perfectly with *Cornus sericea*, L." This No. 8534 is *C. stolonifera* Mx.!! Therefore, the Linnaean Herbarium specimen, the original of Linn's own description and the basis of his *C. sericea* is *C. stolonifera* Mx.!!—which later name must lapse into synonymy. The question now arises: is *C. sericea* L. identical with *C. Amomum* Mill.? There is no way of settling the question except by the comparison of Miller's description with specimens of *C. Amomum* and *C. stolonifera* of our manuals. The stems of the former are gray, and the shoots of the season dull purplish; the stems of the latter are bright red throughout. I would scarcely call the purplish seasonal shoots of *C. Amomum* "a beautiful red," nor would they be conspicuous in winter. On the other hand, the stems of *C. stolonifera* and the plant in general will answer fully to the excellent and characteristic description of Miller. I am constrained to construe *C. Amomum* Miller,

excluding Plukenet, as the same as *C. sericea* L., excl. Pluk., and both the same as *C. stolonifera* Mx.

Since *C. Amomum* Miller must be taken up for our Red Osier Dogwood (*C. stolonifera* Mx.), a new name must be found for the plant of Plukenet Alm. Bot., 121 (1696) and Phyt., Pt. 3, tab. 169, fig. 3 (1692). Fortunately it has received several, so that no new name has to be coined for it. There are two variations, one with rusty pubescence and one with silvery pubescence. It might be either, as pointed out by both Mr. Mackenzie and Mr. Exell, since the color of the pubescence is not shown. Mr. Exell, as pointed out above, says that the Sloane specimen is not exactly similar to the Fig. 3 of Plukenet; but that it is identical with my No. 4272, which has silvery pubescence. From this it may be deduced that the Plukenet specimen had rusty pubescence. In order to place it definitely, I will so interpret it. I am indebted to Mr. A. Rehder, of the Arnold Arboretum, for a transcript of the original description of *C. cyanocarpus* Moench, which name, in so far as I am able to ascertain, is the oldest name applicable to the rusty-pubescent variation of the Silky Cornel.

Moench's original description is short and unsatisfactory, as it does not even mention the pubescence. It is as follows:—

Cornus, Cyanocarpus, foliis ovatis, integerrimis, baccis cyaneis.

It comes between *Cornus sericea* L. with white berries and *C. Amomum* Miller with blue berries, so that the author evidently thought it allied to the latter.

But Moench in the Methodus, 108 (1794) gives the following enlarged description:—

Cyanocarpus, drupis subovatis maturis violaceis; arborea, foliis oppositis subovalibus acuminatis, subtus rubiginoso-pubescentibus; cymis mediis pubescentibus; calyce glandula triplo longiore. Cornus Amomum, du Roi, Ehrhart, Beytr., 4 p. 15.

There can be no question about the application of this description to the variety with rusty pubescence, and it will validate the earlier publication in this sense.

The variation with silvery pubescence, likewise has received various names, perhaps the oldest of which is *C. lanuginosa* Mx., but it is better treated as a variety than as a distinct species, and may be known as *C. CYANOCARPUS* Moench, var. *albescens*, n. var.

C. CANDIDISSIMA Mill., l. c., No. 6. Some authors refer this species to *C. florida* L. and others to *C. paniculata* L'Hér. Miller describes it as follows:

Tree Dogwood with smooth, spear-shaped, pointed leaves, umbels smaller than the involucre, and oval berries.

Those authors who refer this to *C. florida* Linn, do so probably because of the reference to an involucre in the description. But Miller listed *C. florida*, and in his discussion of it noted both white involucres and red ones, which leaves no other variety to be described as a new species. He certainly would not have made two species out of our Flowering Dogwood after mentioning all known variations of it under *C. florida*. Either the reference to an involucre is an error that went undetected, or it does not refer to such an involucre as is found in *C. florida*. I can not construe the leaves of *C. florida* as "spear-shaped." In the 7th Ed. (1759) Miller further says of this: "Female Dogwood of *America* with very white leaves, commonly called Swamp Dogwood." Swamp Dogwood is one of the common names of *C. paniculata*; I have never seen it applied, even as a book name, to the *C. florida*. In addition, I venture to assert that the specific name, *candidissima*, was suggested by "the very white leaves" of the "Swamp Dogwood" (*C. paniculata*). I would make *C. candidissima* Miller, the older name for *C. paniculata* L'Hér. and reduce the latter to synonymy.

C. FOEMINA Miller, l. c., No. 4. This has been interpreted as *C. stricta* Lam., and as *C. paniculata* L'Hér. There is little in the description, taken alone and by itself, to definitely interpret it. But when taken in connection with the description of *C. candidissima* there is no question as to what it is, namely, *C. stricta* Lam. In both the 7th and 8th editions, Miller calls it the *Virginia Dogwood*. The whole trend of the description is toward *C. stricta* Lam., which name also falls into synonymy.

I wish heartily to thank the various gentlemen mentioned above for able assistance generously rendered.

The species considered are given below as I have found them in Michigan.

CYNOXYLON FLORIDA (L.) Raf. FLOWERING DOGWOOD. Frequent in woods. Detroit, No. 1561, May 26, 1897; Rockwood, Nos. 4148, May 21, 1916, and 4786, Oct. 26, 1917.

CORNUS AMOMUM Miller, l. c., No. 5. (excl. Pluk.). RED OSIER DOG-

WOOD; KINNIKINNIK. *C. sericea* Linn. Mant. II. 199 (1771) (excl. Pluk.) and Herb.; *C. stolonifera* Mx., Fl. Bor.-Amer. I. 92 (1803). Keweenaw Co., No. 127, July 10, 1884; Birmingham, No. 127b, Sept. 6, 1903; Parkedale, Nos. 2649, June 9 and 3233, Oct. 27, 1912; Rochester, No. 2797, June 30, 1912; Due West, No. 8587, Sept. 10, 1929; Fenton, No. 8534, Aug. 13, 1929.

C. CYANOCARPUS Moench, Verz. Ausl. 27 (1785); Meth. 108 (1794). SILKY CORNEL. *C. caerulea* Lam., Ency. II. 116-117 (1786);? *C. rubiginosa* Ehrh., Beitr. IV. 15 (1789). Pluk., *Cornus Americana sylvestris*, etc., Phyt., Part 3, t. 169, f. 3 (1692) and *Cornus foemina, Laurifolia*, etc., Alm. Bot., 121 (1696).—Pubescence on petioles, midrib, etc., rusty.—Detroit, No. 1810, Aug. 22, 1903; Livonia, No. 8604, Sept. 17, 1929.

Var. ALBESCENS Farwell. ? *C. lanuginosa* Mx., l. c.; *C. polygamus* Raf., Fl. Ludv., 78, No. 247 (1817); *C. obliqua* Raf., Ann. Nat. 13, (1820); *C. Purpusi* Koehne, Gartenfl. 338 (1899); Hort. Sloane (206, p. 67).—Pubescence on petioles, etc., silvery, inflorescence more polygamo-dioecious; berries darker.—Tacoma, No. 4272, July 2, 1916; Detroit, Nos. 4279½ July 2 and 4403½ Aug. 27, 1916; Fenton, No. 8536, Aug. 13, 1929; Bloomfield, No. 8571, Sept. 3, 1929.

C. CANDIDISSIMA Mill., l. c., No. 6. WHITE or SWAMP DOGWOOD. *C. racemosa* Lam., l. c., 116; *C. paniculata* L'Hér., Cornus, 9, t. 5. (1788). Detroit: Belle Isle, No. 1172a, Aug. 6, 1892; Linden Park, No. 1809b, Aug. 15, 1903; Mack Ave., No. 2023a, June 16, 1907; Parkedale: No. 2740, June 23, 1912; Nos. 3476 and 3479, June 15, 1913; No. 4419½ Sept. 3, 1916; Rochester: Nos. 3464, 3467, 3469, June 15, 1913; No. 4657, Sept. 27, 1917; Butts, No. 4639, Sept. 23, 1917; Ypsilanti, No. 5251½, June 15, 1919.

C. FOEMINA Mill., l. c., No. 4. VIRGINIA DOGWOOD. *C. stricta* Lam., l. c.; *C. fastigiata* Mx., l. c. Not known in Michigan.

DEPARTMENT OF BOTANY, PARKE, DAVIS & Co.,
DETROIT, MICHIGAN.

NOTES FROM THE HERBARIUM OF THE UNIVERSITY OF WISCONSIN—VI

NORMAN C. FASSETT

ELATINE TRIANDRA Schkuhr, var. **americana** (Pursh) n. comb. *Peplis americana* Pursh, Fl. Am. Sept. i. 238 (1814). *Elatine americana* Arnott, Edinb. Journ. Nat. & Geogr. Sci. i. 431 (1830); Fernald, RHODORA xix. 12 (1917); Svenson, RHODORA xxvi. 221 (1925); Fassett, Proc. Boston Soc. Nat. Hist. xxxix. 100 (1928); not of most American authors.

In taking up *E. americana* as distinct from *E. triandra*, Fernald contrasted the obovate to broadly spatulate leaves of the former with the linear to linear-spatulate leaves of the latter, and emphasized a difference in size also. *E. triandra*, whose only station in the Atlantic states is "the bottom of a little pond" in a park at Skowhegan, Maine, is described as often growing to a height of 2 dm., with long internodes. This would appear to be sufficiently distinct from the dwarf *E. americana*. The discovery of *E. triandra* in Wisconsin¹ has given opportunity for a field study of this species. One form is tall and elongate like the Skowhegan plant, and is evidently f. *callitrichoides*, at least as described by Hegi.² The leaves reach 1.3 cm. in length and 3 mm. in breadth, agreeing essentially with the measurements given by Fernald.³ Besides this aquatic form, however, there is a terrestrial plant closely resembling the *E. americana* of estuaries from Delaware to New Brunswick. The leaves are at most 5 mm. long, and differ from those of *E. americana* only in being more linear.

The lack of an elongate aquatic form of the estuarine plant has a parallel in the case of *Eriocaulon*. *E. septangulare*, growing sometimes in as much as 2 m. of water, produces elongate scapes raising the flowering heads to the surface. But the doubtfully distinct *E. Parkeri* of estuaries, alternately deeply submerged and left stranded on the mud, remains short and stocky like the *E. septangulare* found on the shore. Since *E. triandra* var. *americana* is occasionally found on pond-shores in Delaware and Connecticut, an aquatic state like forma *callitrichoides* should be sought in these regions.

Treated as an offshoot of the European, Cordilleran, and rarely middlewestern plant, *E. triandra*, var. *americana* is more easily understood in its occurrence on the estuaries of the northeastern coast than when its range was discussed by the present writer. On page 105 of his paper, the author listed *Tillaea aquatica*, *Gentiana Victorinii*, and *Limosella subulata* with the following words: "A few species, European or Cordilleran in their affinities, appear to have survived the last glaciation on the unglaciated edge of the continental shelf, and are found at present on land neighboring the now submerged edge of this shelf, and on estuaries." *E. triandra*, including its variety, has a range similar to that of *Tillaea aquatica* in Europe

¹ Trans. Wis. Acad. of Sci. Arts & Lett. xxv. 199-200 (1930).

² Ill. Fl. Mitt.-Eu. v. 539 (1926).

³ If we assume that in line 23, page 13, in Fernald l. c., "dm." is a misprint for "cm."

and North America,¹ and var. *americana* has somewhat the relation to *E. triandra* that *Limosella subulata* has to *L. aquatica*.²

On July 12, 1923, Dr. J. J. Davis observed at Durand, Wisconsin, an *Angelica* which had essentially the character of *A. atropurpurea*, but whose leaflets were velvety-pubescent beneath. Each succeeding year has shown more collections of this plant by the same worker, whose observations culminated in the opinion that the typical glabrous-leaved *A. atropurpurea* was confined, in Wisconsin, to the southeastern part of the state, and that the plants of the central, northern, and western parts all had more or less pubescent leaflets.

Study of his plants by the present writer confirms this opinion, and fails to show further differences with the exception of a small distinction in the veins of the upper surfaces, which are more strongly ciliate-scabrous on the pubescent plant. Meagre flowering material indicates that the anther of the glabrous plant is 0.6–0.8 mm. long while that of the pubescent plant is 0.3–0.4 mm. long, but this must be checked with more collections. Comparison of fruits of the same age fails to show any constant difference. This seems best treated, then, as an extreme occurring toward the western edge of the range of the species.

ANGELICA ATROPURPUREA L., var. **occidentalis**, n. var., foliolis subtus in nervis et saepe in spatiis inter nervos pubescentibus, supra nervis scabris-ciliatibus.—WISCONSIN: WASHBURN Co.: Birchwood, July 27, 1928, *J. J. Davis*. SAWYER Co.: Couderay, July 30, 1928, *Davis*. POLK Co.: Balsam Lake, July 25, 1924, *Davis*. BARRON Co.: Barron, September 5, 1929, *Fassett*, no. 8944. PIERCE Co.: Spring Valley, July 13, 1925, *Davis*. PEPIN Co.: Durand, July 12, 1923, *Davis* (TYPE in Herb. Univ. of Wis.). ONEIDA Co.: Tripoli, August 17, 1925, *Davis*. PORTAGE Co.: Plover, August 25, 1917, *Davis*. MONROE Co.: Tomah, July 2, 1926, *Davis*. IOWA Co.: Dodgeville, June 17, 1925, *Davis*. LAFAYETTE Co.: Argyle, June 22, 1925, *Davis*. DANE Co.: Klevenville, July 12, 1929, *Davis*; Madison, July 2, 1907, *J. R. Heddle*, no. 498, and July 26, 1909, no. 1T132; Token Creek, July 25, 1927, *Davis*. GREEN Co.: Browntown, September 22, 1926, *Davis*. BROWN Co.: Fort Howard, June 22, 1886, *J. H. Schuette*.

Typical *A. atropurpurea* occurs in Wisconsin in the southeastern part only, with the following stations represented: LAFAYETTE Co.: Gratiot, July 1, 1927, *Davis*; South Wayne, June 27, 1927, *Davis*. GREEN Co.: Brodhead, September 16, 1926, *Davis*. JEFFERSON Co.:

¹ Proc. Boston Soc. Nat. Hist. xxxix, 105, and pl. 13, fig. 2 (1928).

² Ibid., pp. 105–106, and pl. 13, fig. 4.

Jefferson, June 8, 1929, *Fassett*, no. 8422. WAUKESHA CO.: [probably Muskego] June 22, 1928, *Elizabeth Ehrler*. MILWAUKEE CO.: Milwaukee, *I. A. Lapham*. RACINE CO.: Racine, August 29, 1926, *Davis*.

Gnaphalium saxicola, n. sp., planta 5–30 dm. alta; caulis tomento laxo flocculoso saepe capillis extendentibus; foliis late oblanceolatis marginibus non crispis nec revolutis, supra vix glandulosis non papillosis, glabris vel sparse tomentosis, subtus sparse tomentosis vel glabris; tegulis linearibus, acutis, saepe in apice linearibus acuminatis dentibus incis, 1–2-seriatis, laxioribus quam in *G. obtusifolium*.—WISCONSIN: Congress Hall, Dells of the Wisconsin River, 1866 (collector unknown); shady coulee near Mirror Lake, Delton, September 7, 1891, *R. H. True*; sandstone ledges, cold water canyon, Dells of the Wisconsin River, September 22, 1929, *N. C. Fassett*, *F. M. Uhler*, & *W. T. McLaughlin*, no. 9590 (TYPE in Herb. U. of Wis.).

This species is only 5–30 cm. tall; the tomentum of the stem is loose and flocculent; the leaves are broadly oblanceolate, rather bright green on both surfaces, sparsely tomentose or glabrate, without revolute or crisped margins; the linear acute involucre bracts are in only 1 or 2 rows, and are often cut at the tip into linear-acuminate teeth. Its closest relative, *G. obtusifolium*, is, in contrast, 1.5–7.5 dm. tall; the stem has a denser closer tomentum, composed in large part of hairs oriented up and down the stem; the leaves are linear-lanceolate, minutely elongate-papillate and glandular above, and densely tomentose beneath, with crisped and slightly revolute margins; the rounded or obtusely pointed bracts are closely imbricated in 3 or 4 rows, and entire or shallowly toothed at tip.

At the Dells of the Wisconsin River, near Kilbourn, glacial streams have cut deep gorges in the sandstone, whose varying degrees of hardness have produced many shelf-like ledges. Here, with *G. saxicola*, are *Epilobium glandulosum*, var. *perplexans*, *Cystopteris fragilis*, *Thelypteris fragrans*, var. *Hookeriana*, and a dwarf form of *Hypericum mutilum*. Here also grows *G. uliginosum*, with its bluish color and small heads imbedded in tomentum, always perfectly distinct from *G. saxicola* but *G. obtusifolium* does not seem to be present.

A specimen collected by L. Andrews in shade in Forest Park, Springfield, Massachusetts, loaned from the New England Botanical Club Herbarium through the kindness of Mr. C. A. Weatherby, shows an approach to *G. saxicola* in its small size and short nearly glabrous leaves. The three rows of broad involucre bracts and the dense tomentum of the stem, however, place it with *G. obtusifolium*.

MADISON, WISCONSIN.

CONCERNING A CALIFORNIAN CONVULVULUS

LILY M. PERRY

CONVOLVULUS **simulans**, nom. nov. *Breweria minima* Gray, Proc. Am. Acad. xvii. 228 (1882). *Convolvulus pentapetaloides* Gray, Syn. Fl. N. Am. ii². 436 (1886), not L. Syst. Nat. ed. 12, iii. 229 (1768). Not *C. minimus* Aubl. (1775) nor Vitm. (1789).

Dr. Gray, receiving the American plant from Lower California, first described it as a new species of *Breweria*, but later (Syn. Fl. l. c.), probably on account of its close resemblance to the plates of the Mediterranean *Convolvulus pentapetaloides* (Cav. Ic. ii. 29, t. 123; Sibth. Fl. Graeca, t. 197), he identified it with the Mediterranean species and treated it as naturalized from southern Europe.

Although there is no doubt of the similarity between these species in general, they differ in rather significant details which seem to have been overlooked up to the present time. These differences, chiefly in floral characters, appear to be sufficiently constant to justify the separation of the Californian and Lower Californian material as a species; and since the specific name *Convolvulus minimus* is already pre-empted, the name *C. simulans* is here proposed. The following is a summary of the contrasting characters of the two and will perhaps be helpful in distinguishing these entities:

Bracts minute (1-2 mm. long), glabrous and scarious: calyx glabrous; sepals uniform, broadly ovate, with wide scarious margins, apiculate: corolla (in bud) densely pubescent; lobes obtusish, with salient acuminate angles.....*C. pentapetaloides*.
 Bracts larger (3-4, often to 9 mm. long), pubescent and foliaceous: calyx pubescent; sepals dimorphic, the two outer narrowly oblong, herbaceous, the three inner much broader, oblong-obovate and inconspicuously apiculate, with narrow scarious margins: corolla (in bud) scarcely if at all pubescent; lobes subovate, obtuse.....*C. simulans*.

Convolvulus simulans is apparently indigenous to western North America and ranges near the coast from the vicinity of San Francisco Bay southward into northern Lower California. It has been collected most frequently south of Point Conception. The specimens in the Gray Herbarium are as follows:

CALIFORNIA: Antioch, June, 1884, *Mrs. Curran*; Cholame, San Luis Obispo Co., June, 1887, *Lemmon*, no. 4618; Estrella, San Luis Obispo Co., May, 1885, *Jared*; Santa Barbara, 1879, *Mrs. Cooper*; San Diego, May 1, 1902, *Brandegge*, no. 1665; below San Diego, 1882, *Jones*; Sweetwater Hills, San Diego Co., May 9, 1884, *Orcutt*; La Jolla, April 13, 1914, *Clements*, no. 86.

LOWER CALIFORNIA: hills, 1882, *Pringle*; 1882, *Jones, Parry, Pringle* (TYPE of *Breweria minima*).

The writer is indebted to Mr. Rimo Bacigalupi for comparing the Californian material with the type of *Convolvulus pentapetaloides* in the Linnean collection at Burlington House, London.

GRAY HERBARIUM.

MEESEA TRIQUETRA¹

WILLIAM CAMPBELL STEERE

(Plate 205)

ABOUT twelve miles north of Ann Arbor lies a small post-glacial pond known as Mud Lake. The margins have long since been encroached upon by various aquatic plants, so that now only a very limited area of open water remains, which is completely surrounded by a floating mat of cat-tails and sedges. This zone is surrounded in turn by a dense swamp of tamaracks and spruces growing out of the wet, Sphagnum-covered floor. The general region is probably the richest in bryophytes of any in the immediate vicinity of the University of Michigan. Pennington (1) has published a detailed ecological description of this interesting area.

It was while wading about on the firmer parts of the undulating mat that the writer had the good fortune to run across a fine clump of *Meesea triquetra* (L.) Ångstr. (*Meesea tristicha* B. & S.) with mature sporophytes. This is the second locality in Michigan from which this uncommon species has been recorded, Nichols (2) having reported it from Cheboygan County. It is apparently a circumboreal species, since it has been reported from widely separated stations in Europe, Asia and the northern part of this continent.

Because of the unique and characteristic appearance of this beautiful moss, it is very easily recognized in the field and will hardly be confused with any other species, once it has been determined. Nevertheless, it is rather puzzling to one who has never seen the plant before, for although it is readily identified by the keys in the current manuals, most of the descriptions are so unsatisfactory that one does not feel secure until he has confirmed his determination by comparison with herbarium material.

¹ Paper from the Department of Botany, University of Michigan.

The salient features of the gametophyte are as follows: (1) The distant, strongly squarrose leaves are markedly three ranked, so that, when viewed from above, the tips of sterile plants resemble small three-pointed stars. Of our American manuals, only that of Jennings (3) makes use of this very important diagnostic character, which makes even sterile specimens easy to recognize, and from which the specific name is derived. (2) The serrate margins of the lanceolate, acute leaves further distinguish this from any other species.

The sporophyte is characterized by a very long seta (3-4 cm.) which bears a pear-shaped capsule inclined from an erect, swollen collum or neck. In southern Michigan the spores mature early in July.

The above macroscopic characteristics, together with the bog habitat, should serve to make *Meesea triquetra* easy to identify, even without the examination of the peristome required by most keys. The distinctive peristome characteristics are valuable, however, in confirmation of the determination; the 16 narrow segments of the inner peristome being two or three times as long as the 16 teeth of the outer.

The writer knows no figure which adequately illustrates the gametophyte, although an excellent idea of the general sporophytic characteristics is given by the plate of *Meesea tristicha* in Bryologia Europaea (4) which is reproduced by Grout (5). The peculiar features of the peristome are well figured by Limpricht (6).

The accompanying natural size photograph (PLATE 205) taken July 3, 1930, will therefore supplement previous illustrations and demonstrate some of the diagnostic points.

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- (1) PENNINGTON, L. H. 1906. Plant distribution at Mud Lake. Annual Rep. Mich. Acad. Sci. 8: 54-63.
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- (5) GROUT, A. J. 1903. Mosses with Hand-Lens and Microscope. Published by the author, New York City.
- (6) LIMPRICHT, K. G. 1895-1904. Die Laubmoose Deutschlands, Oesterreichs und der Schweiz. Rabenhorst's Kryptogamen-Flora. Leipzig.

LITTORELLA AMERICANA IN WASHINGTON COUNTY, MAINE.—During the thirty-fifth field meeting of the Josselyn Botanical Society in July 1930, a party consisting of Miss Sue L. Gordon, Mr. H. M. W. Haven, Miss Annie F. Nichols, Dr. F. H. Steinmetz and the writer, visited a small “kettle” or “sink” pond in township No. 18 in the Epping Plains (of the U. S. Coast Survey¹ reports), or the Blueberry Barrens of the Cherryfield Quadrangle; though this pond, which is located a little way to the north of the western end of Schoodic Lake, is unnamed on the quadrangle mentioned, we learned that it is locally known as “Little Schoodic Pond.” On both the western and the southwestern shores of this pond we found in considerable quantity *Littorella americana* Fernald,² growing on the wet strand in silt-filled gravel. The plants were healthy and flowering well. The occurrence of this rare plant so near the terminus of this branch of the great Katahdin esker system³ is indeed most interesting, and suggestive of a possible range of stations along this esker system, since the plant is known to occur in two other ponds farther north along the same system,⁴ in the present Penobscot basin.—ARTHUR H. NORTON, Museum of Natural History, Portland, Maine.

A NEW STATION FOR LITTORELLA AMERICANA.—Professor M. L. Fernald describes the North American *Littorella* in RHODORA, xx, 61–62 as distinct from the European *L. uniflora* (L.) Asch. He also gives its habitat and cites the known stations for the species. He reestablishes the station in Nova Scotia on the shores of Grand Lake and reports it in RHODORA xxiii, 135. During the past summer it was found on July 11 by Mr. Arthur Norton⁵ on the shores of a small “kettle hole” pond in Washington County, Maine. Ten days later it was collected in blossom along the shores of the south end of Pushaw Pond near Orono, Maine by the writer. It was later found at three other points on the shallow shores of the same pond. On September 10th large areas of it were found in various stages of development near a point locally known as Sandy Beach. It was collected

¹ 1858, Bache, Rept. U. S. Coast Surv. for 1857, 302–305; pl. 3.

² 1918, Fernald, RHODORA, 20, 61–62.

³ 1899, Stone, U. S. Geol. Surv. Mon. xxxiv, 104–116.

⁴ 1918, Fernald, RHODORA, 20, 62 (Chemo Pond); and 1931, Steinmetz, Rhodora, 33, 79 (Pushaw Pond).

⁵ 1931, Norton, RHODORA xxxiii, 79.

as late as November 1st. near Kukunsook landing. Undoubtedly conditions have been favorable for its development along the shores of this pond during the past season because of the slow but constant lowering of the water level. —F. H. STEINMETZ, University of Maine, Orono, Maine.

CUSCUTA POLYGONORUM IN NEW ENGLAND.—Last autumn the writer collected a *Cuscuta* in his wood lot at Goose Pond, Concord, Massachusetts, which attracted attention as differing slightly in appearance from the usual run of *C. Gronovii*. The fact that it was growing on *Polygonum acre* seemed of little significance until a recent dissection disclosed corolla- and stamen-characters of the southern *C. Polygonorum* Engelm. The five-parted corolla with acuminate lobes, the obscure scales scarcely visible with a hand lens, and the long stamens at least equaling the tips of the corolla-lobes, seemed to fit no other species. Reference to Yuncker's monograph on North American *Cuscuta*¹ merely strengthened this view. By request, Mr. C. A. Weatherby of the Gray Herbarium made an independent dissection and reported: "I think there is no doubt at all that your *Cuscuta* is *C. Polygonorum* Engelm."

The range for this species has long been considered as: Delaware and Pennsylvania to Minnesota and southward. A recent discovery of the plant on Long Island, New York,² tends to allay somewhat the natural suspicion with which the alleged Concord station must be regarded. Any addition to the flora of New England, particularly if it be a *Cuscuta* several hundred miles north of its "normal" range, must be supported by incontestable evidence. At present, the writer's single sheet in the Club Herbarium constitutes the sole proof of the existence of this plant north of Long Island. Perhaps local students may be tempted to boil up their *Cuscuta reliquiae* in a search for other New England stations of *C. Polygonorum*. It may prove to be a widely distributed plant which hitherto has been entirely overlooked. —RICHARD J. EATON, Boston, Massachusetts.

¹ T. G. Yuncker: Revision of N. A. & West Indian Species of *Cuscuta*.

² W. C. Ferguson: Flora of Long Island, Bull. Torrey Club, 53: 307, 1926.

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MEESEA TRIQUETRA \times 1.

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